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PENDING CLAIMS

1. (Original) A method for reducing power consumption of a decoder in a communication system, comprising:

   estimating a quality metric of a segment of a received signal;

   determining a quality metric threshold;

   delimiting an interval in accordance with a modified quality metric threshold; and

   decoding the segment when the estimated quality metric is outside of the interval.

2. (Original) The method of claim 1 wherein the estimating a quality metric comprises estimating a signal-to-noise ratio.

3. (Original) The method of claim 1 wherein the estimating a quality metric of a segment of a received signal comprises estimating a quality metric of a slot of a received signal.

4. (Original) The method of claim 1 wherein the determining a quality metric threshold comprises:

   determined a data rate of the segment;

   determining a number of segments received; and

   determining a quality metric threshold in accordance with the data rate and the number of segments.

5. (Original) The method of claim 1 wherein delimiting an interval comprises:

   determining a real-valued parameter Δ_0; and

   defining the interval in accordance with a formula $(-\infty, TS + \Delta_0)$, where TS is the quality metric threshold.

6. (Original) The method of claim 5 wherein the determining a real-valued parameter Δ_0 comprises determining the parameter Δ_0 in accordance with a demodulator performance.

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7. (Original) The method of claim 5 wherein the parameter Δ_0 is less than or equal to zero.

8. (Original) The method of claim 1 wherein the decoding the segment comprises:

delimiting a plurality of intervals in accordance with the quality metric threshold;

associating each of the plurality of intervals with one of a plurality of parameters;

determining an interval from the plurality of intervals into which the estimated quality metric belongs; and

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decoding the received signal for a number of iterations equal to the one of a plurality of parameters associated with the determined interval.

9. (Original) The method of claim 8 wherein the delimiting a plurality of intervals comprises:

determining a plurality of real-valued parameters $\Delta_0 \leq \Delta_1 \leq \ldots \leq \Delta_m \leq 0 < \Delta_{m+1} \leq \Delta_{m+2} \leq \ldots \leq \Delta_{m+n}$; and

defining the plurality of intervals in accordance with the formulas:

$[TS + \Delta_{k-1}, TS + \Delta_k)$, for all $k \in (1, n+m)$; and

$[TS + \Delta_{n+m}, \infty)$,

where n, m are non-negative, integer-valued parameters.

10. (Original) The method of claim 9 wherein the parameters $\Delta_1, \ldots, \Delta_m, \Delta_{m+1}, \Delta_{m+2}, \ldots, \Delta_{m+n}$ are determined in accordance with a demodulator performance.

11. (Original) The method of claim 8 wherein a plurality of parameters comprise non-negative, integer-valued parameters $N_1 \leq \ldots \leq N_m \geq N_{m+1} \geq N_{m+2} \geq \ldots > N_{n+m+1}$.

12. (Original) The method of claim 11 wherein the parameters $N_1, \ldots, N_m, N_{m+1}, N_{m+2}, \ldots, N_{n+m+1}$ are determined in accordance with a demodulator performance.

13. (Original) The method of claim 1 further comprising:
evaluating a stopping criterion; and
terminating decoding in accordance with the stopping criterion.

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14. (Original) An apparatus for reducing power consumption of a decoder in a communication system, comprising:

a processor; and

a processor-readable storage medium accessible by the processor and containing a set of instructions executable by the processor to:

estimate a quality metric of a segment of a received signal;

determine a quality metric threshold;

delimit an interval in accordance with a modified quality metric threshold; and

decode the segment when the estimated quality metric is outside of the interval.

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15. (Original) The apparatus of claim 14 wherein the quality metric is a signal-to-noise ratio.

16. (Original) The apparatus of claim 14 wherein the segment of a received signal is a slot.

17. (Original) The apparatus of claim 14 wherein the quality metric threshold is determined in accordance with a data rate of the segment and a number of segments received.

18. (Original) The apparatus of claim 14 wherein the set of instructions is further executable by the processor to delimit the interval by:

determining a real-valued parameter Δ_0; and

defining the interval in accordance with a formula $(-\infty, TS + \Delta_0)$, where TS is the quality metric threshold.

19. (Original) The apparatus of claim 18 wherein the parameter Δ_0 is determined in accordance with a demodulator performance.

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20. (Original) The apparatus of claim 18 wherein the parameter Δ_0 is less than or equal to zero.

21. (Original) The apparatus of claim 14 wherein the set of instructions is further executable by the processor to decode the segment by:

delimiting a plurality of intervals in accordance with the quality metric threshold;

associating each of the plurality of intervals with one of a plurality of parameters;

determining an interval from the plurality of intervals into which the estimated quality metric belongs; and

decoding the received signal for a number of iterations equal to the one of a plurality of parameters associated with the determined interval.

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22. (Original) The apparatus of claim 21 wherein the set of instructions is further executable by the processor to delimit a plurality of intervals by:

determining a plurality of real-valued parameters $\Delta_0 \leq \Delta_1 \leq \ldots \leq \Delta_m \leq 0 < \Delta_{m+1} \leq \Delta_{m+2} \leq \ldots \leq \Delta_{m+n}$; and

defining the plurality of intervals in accordance with the formulas:

$[TS + \Delta_{k-1}, TS + \Delta_k)$, for all $k \in (1, n+m)$; and

$[TS + \Delta_{n+m}, \infty)$,

where n, m are non-negative, integer-valued parameters.

23. (Original) The apparatus of claim 22 wherein the parameters $\Delta_1, \ldots, \Delta_m, \Delta_{m+1}, \Delta_{m+2}, \ldots, \Delta_{m+n}$ are determined in accordance with a demodulator performance.

24. (Original) The apparatus of claim 21 wherein a plurality of parameters comprise non-negative, integer-valued parameters $N_1 \leq \ldots \leq N_m \geq N_{m+1} \geq N_{m+2} \geq \ldots > N_{n+m+1}$.

25. (Original) The apparatus of claim 24 wherein the parameters $N_1, \ldots, N_m, N_{m+1}, N_{m+2}, \ldots, N_{n+m+1}$ are determined in accordance with a demodulator performance.

26. (Original) The apparatus of claim 14 wherein the set of instructions further comprises instructions executable by the processor to:

evaluate a stopping criterion; and

terminate decoding in accordance with the stopping criterion.

27. (Original) A processor-readable medium for reducing power consumption of a decoder in a communication system, comprising instructions executable by processor to:

estimate a quality metric of a segment of a received signal;

determine a quality metric threshold;

delimit an interval in accordance with a modified quality metric threshold; and

decode the segment when the estimated quality metric is outside of the interval.

28. (Original) The processor-readable medium of claim 27 wherein the quality metric is a signal-to-noise ratio.

29. (Original) The processor-readable medium of claim 27 wherein the segment of a received signal is a slot.

30. (Original) The processor-readable medium of claim 27 wherein the quality metric threshold is determined in accordance with a data rate of the segment and a number of segments received.

31. (Original) The processor-readable medium of claim 27 wherein the set of instructions is further executable by the processor to delimit the interval by:

determining a real-valued parameter Δ_0; and

defining the interval in accordance with a formula $(-\infty, TS + \Delta_0)$, where TS is the quality metric threshold.

32. (Original) The processor-readable medium of claim 31 wherein the parameter Δ_0 is determined in accordance with a demodulator performance.

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33. (Original) The processor-readable medium of claim 31 wherein the parameter Δ_0 is less than or equal to zero.

34. (Original) The processor-readable medium of claim 27 wherein the set of instructions is further executable by the processor to decode the segment by:

delimiting a plurality of intervals in accordance with the quality metric threshold;

associating each of the plurality of intervals with one of a plurality of parameters;

determining an interval from the plurality of intervals into which the estimated quality metric belongs; and

decoding the received signal for a number of iterations equal to the one of a plurality of parameters associated with the determined interval.

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35. (Original) The processor-readable medium of claim 27 wherein the set of instructions is further executable by the processor to delimit a plurality of intervals by:

determining a plurality of real-valued parameters $\Delta_0 \leq \Delta_1 \leq ... \leq \Delta_m \leq 0 < \Delta_{m+1} \leq \Delta_{m+2} \leq ... \leq \Delta_{m+n}$; and

defining the plurality of intervals in accordance with the formulas:

$$[TS + \Delta_{k-1}, TS + \Delta_k), \text{ for all } k \in (1, n+m); \text{ and}$$

$$[TS + \Delta_{n+m}, \infty),$$

where n, m are non-negative, integer-valued parameters.

36. (Original) The processor-readable medium of claim 35 wherein the parameters $\Delta_1, ..., \Delta_m, \Delta_{m+1}, \Delta_{m+2}, ..., \Delta_{m+n}$ are determined in accordance with a demodulator performance.

37. (Original) The processor-readable medium of claim 27 wherein a plurality of parameters comprise non-negative, integer-valued parameters $N_1 \leq ... \leq N_m \geq N_{m+1} \geq N_{m+2} \geq ... > N_{n+m+1}$.

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38. (Original) The processor-readable medium of claim 37 wherein the parameters $N_1, \ldots, N_m, N_{m+1}, N_{m+2}, \ldots, N_{n+m+1}$ are determined in accordance with a demodulator performance.

39. (Original) The processor-readable medium of claim 27 wherein the set of instructions further comprises instructions executable by the processor to:

evaluate a stopping criterion; and

terminate decoding in accordance with the stopping criterion.